REMARKS

Reconsideration and the timely allowance of the pending claims, in view of the following remarks, are respectfully requested.

Claims 1 and 24 are amended to provide a clearer presentation of the claimed subject matter. Applicant submits that no new matter has been added. Support for the amendments can be found in paragraph 45 of the as-filed specification. No claims are canceled or added. Accordingly, after entry of this Amendment, claims 1-31 will remain pending. Since claims 25-31 have been withdrawn from further consideration, claims 1-24 remain under active examination.

In the final Office Action dated February 20, 2007, the Examiner rejected claim 24 under 35 U.S.C. § 102(b) as allegedly being anticipated by Mandrekar (U.S. Patent No. 6,117,245); rejected claims 1-13, 15, 18, and 21-24 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Mandrekar; rejected claims 1-13, 15, 18, and 21-24 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Hunter (U.S. Patent No. 6,026, 896) in view of Mandrekar; rejected claims 1-5, 9-11, 14-16, and 20-24 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Schaper (U.S. Patent No. 5,802,856) in view of Mandrekar; rejected claims 12-14 and 17-19 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Hunter in view of Mandrekar and further in view of Kanno (U.S. Patent App. Pub. 2003/0164226); and rejected claims 6-8 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Hunter in view of Mandrekar and further in view of Shultz (U.S. Patent No. 4,060,997).

The Applicant respectfully disagrees with each of these rejections and, therefore, respectfully traverses the same, for the reasons presented below.

I. Prior Art Rejections

Applicant's independent claims 1 and 24 positively recite, *inter alia*, an outlet flow control unit, including a mixing unit, said ***mixing unit comprising a mixing flow chamber having a mixing flow surface, wherein the heat-transfer fluid having a first temperature***

and the heat-transfer fluid having a second temperature are mechanically mixed within said mixing flow chamber.

The Examiner asserts that column 6, lines 11-37 of Mandrekar discloses an outlet flow control unit, including a mixing unit. However, the above-mentioned citation merely states that a cooling fluid supply and heating fluid supply provide respective fluids to a control valve so that the temperature of the thermal fluid mixture resulting from the control valve is dependent only on the proportion of heating/cooling fluids. There is no recitation or suggestion in Mandrekar, whatsoever, of a mixing unit, much less a mixing unit ***comprising a mixing flow chamber having a mixing flow surface, wherein the heat-transfer fluid having a first temperature and the heat-transfer fluid having a second temperature are mechanically mixed within said mixing flow chamber***, as required by independent claims 1 and 24.

The Examiner also asserts that Figures 2 and 3 of Mandrekar depict a mixing unit. However, Figure 2 merely depicts a cooling fluid supply 50 and a heating fluid supply 52 connected to a thermal fluid inlet 32 via a control valve 64. The control valve 64 only controls the proportion of fluids to be supplied and not the mixing of the fluids. Moreover, Figures 3a and 3b also merely depict the use of separate control valves for each of the fluid supplies, but fail to illustrate a mixing unit. None of the elements in Figures 2, 3a or 3b, depict a mixing unit ***comprising a mixing flow chamber having a mixing flow surface, wherein the heat-transfer fluid having a first temperature and the heat-transfer fluid having a second temperature are mechanically mixed within said mixing flow chamber***, as required by independent claims 1 and 24.

Furthermore, the remaining references, Hunter, Schaper, Kanno, and Shultz, are incapable of curing the deficiencies of Mandrekar identified above. Hunter describes a temperature control system for semiconductor processing facilities, wherein a three-way valve is used to provide an option of using fluid from either of two manifolds for distribution of heat transfer fluids at different temperatures to multiple components of multiple process units. Schaper describes a multizone bake/chill thermal cycling module, wherein a substrate is baked and chilled through thermal contact with thermally conductive plates 34, an array of thermoelectric devices (TEDs) 36, and a heat exchanger 38. Kanno describes the use of

temperature adjusting grooves formed in a wafer stage to cool the wafer. Schultz describes water chiller control in which a thermal sensor for return temperature provides effective thermal control. Each of these references fail to teach or suggest, a mixing unit ***comprising a mixing flow chamber having a mixing flow surface, wherein the heat-transfer fluid having a first temperature and the heat-transfer fluid having a second temperature are mechanically mixed within said mixing flow chamber***, as required by independent claims 1 and 24.

Thus for at least these reasons, Applicant submits that none of the asserted references, whether taken alone or in reasonable combination, teach or suggest the claimed combination of elements recited by independent claims 1 and 24. As such, claims 1 and 24 are clearly patentable. And because claims, 2-23 depend from claim 1, either directly or indirectly, claims 2-23 are patentable at least by virtue of dependency as well as for their additional recitations. Accordingly, immediate withdrawal of the prior art rejections of claims 1-24 is respectfully requested.

II. Conclusion.

All matters having been addressed and in view of the foregoing, Applicants respectfully requests the entry of this Amendment, the Examiner's reconsideration of this application, and the immediate allowance of all pending claims.

Applicant submits that the entry of this Amendment is proper under 37 C.F.R. §1.116 as the claim changes: a) place the application in condition for allowance for the reasons discussed herein; b) do not require any further consideration as the changes incorporate, in one form or another, features that should have been already searched; and c) places the application in better form for an Appeal, should an Appeal be necessary.

Applicant remains ready to assist the Examiner in any way to facilitate and expedite the prosecution of this matter. If any point remains in issue which the Examiner feels may be best resolved through a personal or telephone interview, please contact the Undersigned at the telephone number listed below.

Please charge our Deposit Account No. 50-3451 for any additional fee(s) that may be due in this matter, and please credit the same deposit account for any overpayment.

Respectfully submitted,

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